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AMERICAN DYESTUFF REPORTER

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By A. Kertesz

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AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

"Circulated Everywhere Dyestuffs are Used"

Vol. 6 New York, January 5, 1920 No. 1

"EVENTUALLY—WHY NOT NOW?"

In Many Ways 1919 Failed to Meet Specifications, but Its Successor Will Have 527,040 Minutes in Which the Senate Can Act

WELL, he's here at last—got in just at midnight of December thirty-first—and Heavens! what a fuss they *did* make over him. Well they might, for we don't have the pleasure of welcoming a brand new Year every day, and this one seems to give every promise of etc., etc., etc. Sure he does! You know it and we know it and everyone knows it. Doubtless you told the neighbors so at the time. It is difficult to resist the inspiration which is prone to well up in every human breast on the knowledge that the dawning of a fresh Gregorian or fiscal or whatever it is they call it, year is upon one, and that here is the big chance to start fresh and make it what is technically referred to as a Wonder.

Yet when one thinks of all the promise which 1919 gave not so very long ago, and then considers the results of its passing, anything in the line of the Pollyanna school of literature seems, somehow, to ring a little hollow, or to be tinctured with a wee drop or two of the product which is produced at the plant of that well-known firm, Gall & Wormwood, Inc. Certainly 1919, from which so much was expected, did not live up to the references given by his former employers.

Nevertheless, if this is to be the spirit of what is to follow, or to be THE REPORTER'S manner of greeting the New Year, our readers could scarcely be blamed for taking swift flight and deserting us in favor of something more optimistic. And this we would not have for any number of reasons which we might mention, the principal one being that it is not at all our spirit and, so far from abandoning our optimism and dragging out the tremolo stop preparatory to playing something weepy in a minor key, we never felt more chipper and full of fight than we do right now. In fact, the prime purpose of this New Year's effusion is to notify all elements of the dye making and dye consuming industries that we intend to keep right on doing business at the old stand, that we shall continue to come out in these columns each week and perform antics

for the amusement of such as care to trail along with us—and for the possible derision of some—that we have not found anything which has altered our determination to be just as uncompromising where we believe the interests of the American dye industry to be concerned, and to be just as plain-spoken and as independent (and possibly just as fresh, some may claim) as we ever were in the past. It is the inalienable and hereditary right of all publishers to say these brash, bold things every once in a while; hence we are only taking advantage of our prerogative.

But don't you forget that there is to be no weakening either in principles or practices; there is a rather important issue, thus far ignored by that portion of the dye and textile trade press which have published numbers since its appearance, which we desire ardently to take up immediately. But no matter; this is not the time for it. It will keep very well until next week, when things begin to liven up a little.

Our optimism, we assure you, merely grows more durable as the years pass, and our faith in the future of the American dye industry and its potential usefulness to the entire country, is in nowise dimmed. It is only that we have been compelled to go a little slow on predictions, forecasts and what not having seen the unconscionable length of time required before Things can Actually Happen. Therefore, let us unite in giving three cheers for the New Year, thus: "Hurrah! *Hurrah! HOORAH!!*"—and a Tiger! so that no one shall accuse us of neglecting the formalities. And now to business.

This New Year is the twentieth year of the Twentieth Century. Being a leap-year, it brings with it a Presidential election, which ought to be of considerable interest; proposals, no doubt, for many a wealthy but bashful bachelor, and the clean-cut, outstanding realization that now or never must the dye industry of this country make its supreme effort to secure the protection which is its need and its right as a dominating factor in national preparedness, both military and economically.

Because it is one of the years selected for straightening out the calendar under which we live, it will contain 366 days instead of the conventional 365, and will have in it some 527,040 minutes instead of the usual number. More than half a million minutes should give the Senate plenty of time to attend to the industry and get the Treaty settled without straining itself, despite the fact that it is going to have a busy year of it.

Last May the Longworth bill was introduced before the House and was referred to the Committee of Ways and Means. As before suggested by this publication—in a moment of frivolous abandon, of course—the committee found the ways and the industry furnished the means, and the latter part of the following September at last saw the measure passed, licensing feature and all. During the interim and up to the moment of passage there were, of course, some very harsh things said about the licensing clauses of the measure, but in spite of all that, reason prevailed, an understanding of the vital need of the bill was registered upon enough Representatives to give it all it required in the way of votes, and altogether the House made a good job of it notwithstanding.

Then it went to the Senate, already harried and hounded to death about the Treaty, and for the ensuing delay one cannot conscientiously blame the wearers of the toga. They had enough to contend with during the closing half of the session completed on December 20 to have justified postponing a consideration of the bill.

But when it is that one considers *why* they were being so harried and generally heckled, and what was the real cause of the Treaty delay which produced the dye bill delay, and the pettifogging methods by which the Penrose resolution was handled, then patience becomes a virtue indeed. The point is that whatever they may decide to do with the Treaty eventually could have been decided just as well months ago.

If reservations were desired—why

then, name your reservations, gentlemen, and take action. Bless your souls, that's what you're *for*; nobody's going to heave any rocks at a man who does his work faithfully and efficiently. The Treaty is long, yet after all, there are not so many important issues raised but that they can't be boiled down, crystallized and spread out for all to see clearly, in a fortnight. Other nations there were which had as much at stake as we, yet they did not need half a year of wrangling before they found out what a majority wanted. If it is your desire to protect this country to the limit—which should be done before all else—a reservation upholding the Monroe Doctrine and another retaining the right of Congress to direct the movements of United States troops would have served this purpose well. Or there could have been added as many interpretative reservations as may have been thought necessary. But it should have been *done*, to the end that other big, vital matters could have been looked after and the country partially removed from its present tension.

There is bound to follow enough nervous strain, after every big conflict, without adding to it by infantile vacillation and bickering. And one of the first moves on the part of any government should be to take steps to see that such a conflict does not happen again—or in the event of its happening, to be prepared to meet it. Just because Americans as a race are gifted with the faculty of responding with extraordinary speed to demands of the nature made upon them in 1917, that is no reason why even the minimum of time we *did* use should be wasted. Think what might have been the result if we could have had a flying start! And think of the lives that could have been saved!

No, without leaning to either party, common sense tells anyone that it is not right or fair to jeopardize the destinies

(*Concluded on page* 9.)

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Pointed solely toward the welfare and growth of the American Dyestuff Industry. Unbiased contributions appreciated.

A. P. HOWES, President
LAURANCE T. CLARK, Editor

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"SO THAT WAS 1919!"

Good morrow, all; what cheer, what cheer
To welcome in the coming year!
Another cycle annular
Has Brodied off the calendar
To parts unknown; but hard apace
The new one speeds to take its place
As Nineteen-twenty, lurching, reels
Around the corner on two wheels
And, halting sharp, surveys aghast
The dreary ruin of the Past.
"*What* cheer?" he shrieks, and tugs his hair
As full the horror dawns—but there!
What's went is gone; what's did is done—
The Glad* New Year is well begun.

* * * * *

When Nineteen-nineteen ambled in
Amid a most resounding din,
It led a lot of us to state
That all was pink and roseate.
The Boche had cried, "These Yankee fools
Know less than nothing of the rules
Which guide a well-conducted war—
And so, we'd rather play no more!"
The Armistice, the Hunnish crew
Affixed Teutonic hen-tracks to,
(Which means they signed) and all did hope
That Reconstruction was the Dope!

* * * * *

Well, so it was—but Fate has bucked
Our best-laid plans to reconstruct.
For Nineteen-nineteen's ways were crude
And hopeless chaos has ensued;
Its barren months have little brought
Of all the Things Which Should to Ought,
And France is terming it, we hear,
Most properly, the Wasted Year!

* * * * *

The Hun, 'tis true enough, is broke;
He's placed his choicest duds "in soak,"
And must, perforce, to gain a meal,
Ge-beg, ge-borrow or ge-steal!
"Yet—what of this?" we may inquire;
Domestic fat is on the fire.
Our own predicament is one
Not unamusing to the Hun.
Economists have all declared
Our trade is like to be impaired
Because, while business isn't slow,
The banking funds were ne'er so low
And credit's vastly swollen up—
Inflated—like a poisoned pup,
And hence, we're sure to face, we're told,
A panic, e're the New Year's old!

* * * * *

Aside from this, full many eyes
Are being cast on German dyes
Full covetous—which isn't wrong
Except—they shouldn't look so long!
Nor yet so hard, so hungrily
That all observers well may see
The mute appeal of those whose will
Would choke the struggling Longworth bill
And knock it cold! 'Tis well enough
To dye our goods with German stuff
Which cannot yet at home be made—
But who desires the Hunnish trade
That flourished prior to the fray?
Come, *who* desires this trade? we say!

If such there be, go, mark him well;
Perhaps a blackened eye would tell
In fitting style, to those who hark,
The value of a German mark!
Go, demonstrate at proper range
The fearful drop in Hun exchange . . .
. . . Nor give ye pause; this having done
Go straight and black his other one!

* * * * *

But let's resume; the Longworth bill
The Senate's gravely hatching still,
But when the chick will come to scratch
Is better known to those who hatch.
Last May, it seemed, a month or two

*Poetic license.

Would well suffice to see it through,
And then its needs, our Solons swore,
Were yet another month—or more.
Cant followed ranting, to and fro
The windy torrents swept—and so
In "movie" terminology
On went the Sennett comedy
And still on New Year's Day we find
It simply can't make up its mind!

* * * * *

Ye Gods! What else to tempt our ire?
The Treaty yet is hanging fire,
And where the Covenant will land
We wager few can understand.
Just now one counts the cost too dear
To spend a nickel for a Beer
(Of CH_3OH beware!)
While those whose cellar shelves are bare,
And cannot bear to lose their foam,
Have started Bruin in the home!
No matter where the eye may turn
'Twill find Unrest does brightly burn;
The Paper Cap, or Labor's pal,
The climax capped of Capital,
While Public, melancholy wight,
Has donned *his* cap to say "Good night!"
Poor Russia, wrecked by guileful tricks,
Is domineered by Bolsheviks,
And here among a people free
The Reds, as anyone can see,
Have wide their Crimson flag unfurled.
—*Some* year, we'll notify the world!

A survey of the knitting situation as to production for 1920, as well as the relation of knit goods prices to the cost of labor, yarns and silk, will be among the questions to be considered at a general meeting of the National Association of Hosiery and Underwear Manufacturers to be held in New York City, January 13. The place for the gathering has not as yet been designated.

To manufacture chemical products, etc., the Sumner Chemical Products Company has been incorporated under the laws of New Jersey with a capital of $150,000. Offices of the company will be located in the Essex Building, Newark.

"EVENTUALLY; WHY NOT NOW?"

(*Concluded from page 7.*)

of millions of people, nor the lives of their dearest and closest of kin.

The latest anent the Longworth bill is that the members of the sub-committee of the Senate Finance Committee feel that the licensing measure would be too radical a proposition to place before the main body. But this is an era of radical moves, and in any case, radical situations must be met by moves which shall be in keeping with their abnormalities. The situation of the dye industry in this country is something entirely new for us. The Senate, we take it, would not hesitate to create and even subsidize munition plants if a surden need arose. But the dye industry neither asks nor needs subsidization. It does not even expect a temporary monopoly. The licensing feature of the Longworth bill would not tend in any way to create a dye trust in this country.

Let us assume, for argument's sake, the textile industry dominated here by a dye trust. Trusts have been dealt with by the Government many times in the past and could be again—and promptly. But let us imagine the German trust in control of the situation. It ought not to be hard to imagine this; just remember how things were in 1914 and before. The Government, it will be said, could also control the German kartel. Of course it could, but in the absence of a dye industry here, what would follow!

So it all comes back to the original proposition in the end. In the words of a famous bit of advertising copy: "Eventually; why not now?"

To deal in foodstuffs, dyes, oils, chemicals, etc., the Jackbro Products Corporation has been incorporated under the laws of New York with a capital of $100,000. Headquarters will be in Manhattan and the incorporators are J. C. Brown, A. Rosenstein and I. M. Bellert.

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INFLUENCE OF THE ATMOSPHERE ON WOOL

By A. Kertesz

(Read before the Association of German Chemists in 1916 and suppressed by the German Government during the war.)

It has surprised many intelligent observers that the appearance of the clothing worn by many of the soldiers on leave had very much altered, in the surface of the cloth had completely disappeared, laying bare the threads of the cloth so that the uniforms looked like badly-worn cotton material.

According to the present state of our knowledge, the following could be possible causes of this:

1.—That the raw material was of low quality.

2.—That the wool had been deteriorated in the dyeing or in course of manufacture.

3.—That the uniforms had been affected by conditions prevailing on active service, for example, poison gases, or gaseous products from high explosives.

4.—That the faults had been caused by too severe or too alkaline steaming during the disinfecting process.

The last named suggestion was considered very probable, because the dirt and earth present in the uniforms might easily react alkaline when steamed and thus cause the damage.

The examination of hundreds of garments taken from the different hospitals proved, however, that the above suggestions as possible causes of the extraordinary deterioration of the uniforms were wide of the mark, because clothing which did not come within the scope of the above possible causes was equally badly affected.

Further experiments showed without any possibility of doubt that the effect on the cloth was due in the first place to the action of atmospheric influences on the wool, and that the observed differences in the uniforms were due to the degree and length of exposure to which they had been subjected. The hitherto accepted idea that the appearance of the cloth was an indication of the exertions and fatigue through which the wearer had passed was proved to be incorrect in its general form. The change in the cloth was rather an exact measure of the length of time the wearer had been in the open.

These faults had not shown themselves hitherto on this scale, because uniforms had never previously to this war been submitted to so long, continuous, and severe exposure to atmospheric influences, so that these faults had now developed after months instead of after years, when they were attributed in the latter case to general wear.

It was noticed by A. Rechberg, in Hersfeld, that asmospheric influences had a strong action on the wool fiber. This firm found in 1913 on making long exposures of German blue-gray uniform cloth, made respectively from two blends of colored wool in which white wool and chromed wool were used for blending purposes, that the white wool in the mixture became tender while the chromed wool did not.

The experiments carried out by me on this basis completely confirmed the supposition of Rechberg, and showed that wool on exposure to the atmosphere became tender and finally completely destroyed. The destruction was most pronounced if the wool was in its natural state. The destruction is most pronounced on white scoured wool, less pronounced on dyed fool, and still less pronounced on chromed wool. Acid salts, alum, or iron salts delay the destructive effect on the wool, but not to the same extent as chrome salts. The effect is the strongest in the summer months with most sunshine.

The action is most easily seen if a cloth made from a mixture of dark dyed wool and white wool is exposed to the atmospheric influences and carefully examined from time to time. The cloth begins to grow darker and darker after three to four months' exposure, due to the fact that the white wool falls out and the cloth becomes quite dark and tender after a few more months.

On examination of uniforms which had been worn on active service it was estimated that the markedly changed appearance of the cloth could also be attributed to the action of the sun and weather. This was confirmed by fastening blue-gray uniforms onto a board and exposing them for eight months. At the end of this period the cloth had completely lost its wool character, and after the dirt and dust had been removed possessed exactly the same bare appearance that had been noticed in the case of many uniforms returned from active service.

Experiments were now made by exposing for eight months undyed cloth which had been previously treated as follows:

1. Undyed gray cloth.

2. The above boiled 1¼ hours with 4 per cent sulphuric acid.

3. The above boiled 1¼ hours with 4 per cent formic acid.

4. The above boiled 1½ hours with 3 per cent bichrome, 2½ per cent tartar.

5. The above boiled ¾ hour with 3 per cent potassium bichromate, 6 per cent lactic acid, 1 per cent sulphuric acid.

6. The above boiled 1 hour with 2 per cent sulphuric acid and then 2 per cent bichrome added and boiled ¾ hour later.

7. The above boiled 1 hour with 2 per cent formic acid and then 2 per cent bichrome added and boiled ¾ hour longer.

8. The above washed ¾ hour at 122 deg. Fahr. with 2 gr. ammonia, ½ gr. hydrosulphite, ½ gr. universal oil per liter.

BEFORE EXPOSURE

	Strength	Elasticity
1	35	78
2	35	75
3	33.4	76
4	34	72
5	33.2	79
6	35.4	76
7	35	72
8	33.2	76

AFTER EXPOSURE

	Strength	Elasticity
1	23	53
2	27.4	62
3	28	65
4	28	64
5	29	64
6	28.2	67
7	27.6	65
8	26	60

Test on the rubbing machine after preliminary extraction with ether.

LOSS AFTER EXPOSURE

1	65 per cent
2	48 per cent
3	40 per cent
4	50 per cent
5	31 per cent
6	49 per cent
7	40 per cent
8	61 per cent

The experiments also showed that the softer the cloth handled the severer was the effect of exposure; for instance, cloths treated with lanolin on the anticipation that the lanolin would protect the cloth were more affected than cloths not treated with lanolin.

The physical properties of the cloth play a part in that cloths with a soft handle are more sensitive to atmospheric influences than cloths with a hard handle. An examination of the above results shows that No. 5 gave the best result, that the most effective protection is oxide of chrome, and the cloth that contained the most oxide of chrome was the best, thus No. 5 is better than No. 4, owing to the lactic acid producing more oxide of chrome than tartar. Nos. 2 and 3 behave like Nos. 6 and 7, while No. 8 behaves similar to No. 1 which suffered the most.

The further experiments were directed to find out which of the atmospheric influences had the greatest effect. There comes into consideration besides moisture the oxygen or ozone of the air and the light rays.

Woolen yarn and cloth were submitted for several weeks to the action of ozone. A bleaching action was soon

observed, and after eight weeks' exposure the fiber had deteriorated 35 to 40 per cent in strength. The alteration in the wool caused by the action of the ozone was quite different from that caused by atmospheric influences. Ozone does not cause the fabric to lose its soft woolen character, whereas on exposure to the atmosphere the wool loses its woolen character and grows increasingly hard. Also on exposure to ozone there was no difference between chromed and unchromed wool.

The experiments in which different wool samples were exposed to the illumination of a mercury vapor lamp, which is known to be very rich in ultraviolet rays, were much more decisive. In a very few days it was manifest that exactly the same results were obtained as by exposure to the atmosphere. The employment of this lamp offered the additional advantage that absolutely comparative tests could be carried out in the laboratory without taking the weather into consideration. That the reaction of the lamp was similar was shown by the fact that the differently exposed wools behaved almost the same and that the tendered wool in both cases showed the same characteristic reactions.

The surface of the exposed wool showed the surprising property of being much more readily attacked by alkali than non-exposed wool, in that weak soda or ammonia solutions had a solvent action on the same at moderate temperatures. If solutions obtained by this method are submitted to the Biuret reaction for albuminous bodies. (Becke, *Farber Zeitung*, 1912, p. 45; 1919, p. 101) experience has shown that the reaction is very useful for determining to what degree the wool has deteriorated.

Method of Examination

Samples of cloth 4-5 cm. long by 2-3 cm. wide were allowed to stand for 1 hour at 60 to 65 deg. C. in a test glass containing 10 c.c. soda ash solution (1 per cent) after being well wetted out, during which process rubbing must be avoided. The soda solution was then poured off and 10 c.c. normal caustic soda and 2 c.c. copper sulphate solution (1:20) added. After some time the affected wool shows a violet coloration, which is compared with a prepared scale. It may be inferred from the sensitiveness to alkalies that the breakdown of the albumen molecule is caused by the light rays assisted by the moisture and oxygen of the atmosphere. This inference is supported by the fact that pure unweighted silk suffers the same deterioration and that the degree of the deterioration may be estimated by the Biuret reaction.

Only one difference shows between wool and silk in that tender wool shows a marked acid reaction, because the sulphur in wool oxidizes to sulphuric acid when it breaks up, while there is no acid formed in the case of the silk because the silk molecule contains no sulphur. The fact that raw unweighted silk is sensitive to light rays has already been proved earlier by Ristenpart (*Zeitschr. f. angew. Chemie.* 1909, Sec. 18).

Moisture alone does not play an important part, because the same reaction is obtained with the mercury vapor lamp whether the cloth is wet or dry. Further experiments will be necessary before it can be determined whether individual colors increase or decrease the absorption of the light rays. Experiments as far as they have been completed show that dark shades deteriorate less rapidly than pale shades.

The degree of deterioration of the wool may also be determined by dyeing with Methylene Blue in an acetic acid bath at 122 deg. Fahr. The deteriorated wool dyes much heavier than the non-exposed wool.

Before practical conclusions may be drawn from the above results further study and many experiments will be required.

For the moment I may recall my earlier publication (*Farber Zeitung*, 1908, No. 13) that wool treated with acids and mordants increased in

strength. It may now be accepted that this increase in strength is coincident with its increased resistance to atmospheric influences.

One may rightly assume that a closer study of wool will enable a better wearing cloth to be manufactured than hitherto. The above experiments also show that wool does not possess the highest wearing properties, and that these may be improved.

Later experiments have confirmed all the results given above.

The cloths most resistant to atmospheric influences are those which contain 1 per cent oxide of chrome calculated on the weight of dry wool. The difference may easily be seen by exposing side by side for a few months untreated woolen cloth and cloth treated with chromium acetate 3 to 5 deg. Be. Moreover, it may also be stated that sulphuric acid used in dyeing wool is detrimental to the resistance of the wool to atmospheric influences, while organic acids are much less detrimental.

The substitution of mineral by organic acids is strongly recommended, at least for fabrics for which the best wearing properties are required.

For the testing of deteriorated wool the Biuret reaction may be strongly recommended. With a little practice reasonably accurate determinations may be made of the degree of deterioration. —*Textiles.*

The Ranlo Manufacturing Company at Ranlo, near Gastonia, N. C., contemplate building a duplicate of their present mill which has 6,000 spindles with looms on automobile tire fabrics.

A NEW DEVELOPING METHOD

An American patent protects a method of developing direct cotton colors, especially blacks. It is claimed that by the use of the new developer a black can be obtained equal in fastness to Zambesi Black and with a superior luster, the process having a less deleterious effect on the fabric. The new process is suited not only for the amido group of dyes, with which it gives a superior color and finish, but for practically any developed color.

After dyeing with the direct dye in the usual way, the fabric is treated for fifteen minutes in the diazotizing bath prepared in:

½ lb. sodium nitrite crystals.
½ lb. sulphuric acid.
100 gals. water.

The bath is used at the room temperature, the quantity given above being for 100 lb. of material.

The goods are then thoroughly washed with cold water and subjected to the developing bath. This should be done promptly since light affects the fabric when in this condition. This developing bath is prepared as follows:

80 gr. acetic acid 30 per cent.
80 gr. chloroform.
80 gr. zinc acetate.
10 gr. aqua ammonia 26 per cent.
880 gr. cold water.
5 lb. beta naphthol.
1 lb. alpha naphthylamin.
3 lb. phenol crystals.
8 lb. caustic soda.

The mixture is heated until the materials are dissolved, and 75½ lb. sodium chloride is slowly added and thoroughly mixed. Then 5 lb. nitric acid or hydrochloric acid is slowly added. The whole is then cooled off and pulverized, re-

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sulting in 100 lb. developing material. Four to eight oz. of this developing material is diluted in sufficient boiling to form a solution, to which is added sufficient cold water to overflow the 100 lb. of fabric hitherto mentioned.

The acid-prepared fabric is allowed to remain in the developing bath for about fifteen minutes during which the shade changes to a deep green black, the color is permanently set, and the high luster-finish is given. The fabric is then removed from the bath and is rinsed in warm water and soap to remove the superfluous developer and any other loose foreign matter, this also testing the fabric for permanency of color.

ADHESIVE DRESSING FOR SILKS

The high price of gum arabic and allied products has led to extensive adulteration in connection with the finishing of silks, not merely by the admixture of cheaper, inferior gums with cherry, plum and similar (cerasin) gums, but also by the addition of artificial products, made from starch.

When the gum is in the state of lumps, or granules, adulteration with inferior varieties can be detected without much difficulty by the aid of the microscope.

In the case of powdered gum, however, such adulterations are difficult to prove, although chemical reactions will leave no doubt. Powdered gums may generally be suspected of containing dextrine.

The adulteration with gums containing bassorin or cerasin, such as cherry, plum, almond, or apricot gum, can be detected in many cases by simple examination or purely mechanical tests. In this case the solubility test soon removes doubt. Bdellium gum, which also is often used as an adulterant, has a greasy feel, and sticks to the teeth when chewed. In a few cases the determination of the specific gravity is useful, bdellium gum, for instance—which moreover, is sufficiently characterized by liberating ammonia on distillation—having the sp. gr. 1.371 at 175 deg. C., whereas that of gum arabic is considerably higher.

Adulteration with gums only partially soluble in water, can easily be detected by treating the suspected sample with water, these gums merely swelling up or only dissolving in part.

To detect the addition of cerasin or bassorin gums to gum arabic, the gum is soaked in water at 15 to 20 deg. C. The portions containing arabin dissolve, and water is added until a very thin solution is obtained, from which the insoluble portions and impurities will settle down to the bottom in a short time. The insoluble portion is collected on a filter, to drain, and is then boiled with sodium carbonate solution, whereupon the cerasin, etc., will dissolve, leaving the impurities behind.

If the gummy residue, remaining after decantation and filtering, dissolves under this treatment without remainder, no cerasin gum was present in the sample. In this event, the lumpy deposit left on treating the gum with water is separated by decanting the solution, and then brought into the filtrate by the aid of much warm water. If the quantitative determination of organic and inorganic impurities has to be made, the filtrate from the portion boiled with sodium carbonate, gives a precipitate containing all the metagummic acid, when acidified and treated with 90 per cent alcohol. Provided cerasin be present, it is evident that the method may also be applied for the quantitative determination of cerasin and bassorin in certain cases, provided filters, weighed and dried at 100 deg. C., be used for collecting the several components.

Tragacanth is easily detected in powdered gum by means of the microscope, inferior tragacanth showing starch granules, and all kinds exhibiting fragments of the cell walls from which they have been derived.

Flour and starch are also easily identified under the microscope.

There is also little difficulty in detecting dextrine in arabin gums, owing to its characteristic behavior towards

various reagents. Dextrine always contains more or less glucose, a red precipitate occurring when the sample is heated to above 70 deg. C. with alkaline copper solution, indicates dextrine. In presence of any considerable proportion of arabin, 5 to 8 drops of a concentrated solution of ferric chloride will gelatinize 5 c.c. of an aqueous solution of gum (1 part of gum, 2 parts of water). If dextrine be present, merely a whitish turbidity will occur when the jelly is shaken up with water; and in the case of pure gum, the jelly will not dissolve.—*Posselt's Textile Journal.*

BRITISH WOOL TEXTILE INDUSTRIAL COUNCIL DISCUSSES LABOR DISPUTES

The first annual meeting of the National Wool (and Allied) Textile Industrial Council was held at Bradford, England, on November 12. The report of the council for the year was adopted.

The report stated that the council consists of affiliated employers' associations and trade unions. The membership of these associations cannot at present be given, but of the 325,000 persons employed in Great Britain and Ireland in the wool textile trade, 250,000 are employed by firms which are members of affiliated associations of employers. Of the remainder a number are members of trade unions affiliated to the council, but are employed by firms not members of the affiliated employers' associations.

The organization of the council consists of itself, as representing England and Wales, and of three district councils, namely, the Northern Counties District Council with thirty-two members a side, the Welsh District Council with eight members a side, and the West of England District Council. This plan of district councils has been found to work quite well.

The first great problem considered by the council was that of hours of labor, and on March 3, 1919, the wool textile trade as a whole went on to a 48-hour week. Generally speaking, the 48-hour week was adopted without any provision for extension. But in some instances, to maintain the balance of production, it was found necessary to provide for various conferences of sections of the trade, and these resulted in the whole matter being settled with due regard to the interests of the sections of the trade and of the peculiar circumstances of the various districts.

The report adds that one of the provisions of the rules of the National Wool Textile Council is that before a dispute may take place notice shall be given that such dispute is apprehended, and, if the emergency committee of the council concurs, the question in dispute should be referred to the arbitration of a court selected from panels of representatives of employers and employed by the council. Nineteen such disputes have been notified to the secretaries. Of these, five have been referred to arbitration, three are outstanding, and the remaining eleven have been settled. The council believes it has already rendered useful service to the trade, and that this is merely an earnest of greater services in the future when further experience has been gained.—*U. S. Consular Report.*

Prevented last year from holding its annual convention because of the influenza epidemic, members of the National Wool Growers' Association will get together for the delayed event on January 19, 20 and 21 at Salt Lake City. The convention will follow that of the Utah Wool Growers' Association on January 17.

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NOTES OF THE TRADE

Burglars, drilling the safe at the plant of the Roessler & Hasslacher Chemical Company, recently succeeded in making away with gold and platinum valued at about $75,000. The plant of the company is located at 52 Fayette Street, Perth Amboy, N. J.

Announcement has been made to the trade that the Salt's Textile Company, of Bridgeport, Conn., has increased its capital stock from $3,000,000 to $5,000,000. At the same time, it is understood that an enlargement of the company's plant is under consideration.

Under the laws of Delaware, the Reading Extract Company has been incorporated with a capital of $100,000. The incorporators of the new concern consist of Lawrence C. Briggs, Dr. Rudolph Pabeska and W. A. Baer.

Announcement has been made, effective January 1, that George Wolf & Co., Inc., of 73 Leonard Street, New York, has taken over the business of George H. Wolf, trading as Wolf & Erskine. The corporation will convert cotton, and silk and cotton, fabrics.

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With a capital of $3,000,000, the Worrell Chemical Corporation has been incorporated under the laws of Delaware.

January 3 was the date set for the beginning of the movement of German vat colors to this country. It is planned to have the entire shipment on the move by January 18. They will travel down the Rhine to Rotterdam, and upon arrival in New York will be rearranged for domestic distribution.

The next series of Government wool auctions is scheduled to get under way on Wednesday, January 7, and will continue through Saturday. The time limit for taking deliveries has been reduced to fourteen days instead of the thirty-day rule which prevailed in December.

To deal in silk bolting cloth and mill supplies, Tobler & Co., Inc., has been incorporated under the laws of New York with a capital of $40,000. The company will be located in Manhattan, and the incorporators consist of J. Tobler, A. C. Kuhn and J. A. Kenny.

The Mesidor Silk Importing Company has been incorporated under the laws of New York with a capital of $100,000 to deal in textiles. Headquarters of the new concern will be located in Manhattan, and the incorporators include F. M. North, E. M. Baumgart and F. Spiro.

Under the laws of New Jersey the Hudson Piece & Skein Dye Works has been incorporated. The capital of the new company, which will carry on a general dyeing and cleaning business, is $100,000, and headquarters will be at 934 Main Street, North Bergen, that State.

To manufacture silk and other textile fabrics, the Creston Mills, Inc., have been incorporated under the laws of New Jersey with a capital of $100,000. Offices of the company will be located in Putnam Street, Paterson.

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